

Application No.: 09/577,790
Amendment and Response dated March 15, 2004
Reply to Office Action of January 14, 2004
Docket No.: 760-116 RCE
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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the subject application, and please amend the claims as follows:

1. (Currently amended) An implantable prosthesis having improved mechanical and chemical properties comprising:

a radiation resistant and hydrolytically stable biocompatible fabric having inner and outer surfaces and first and second ends;

said fabric having a textile construction of a plurality of polymeric filaments comprising a naphthalene dicarboxylate derivative, wherein said radiation resistant and hydrolytically stable biocompatible fabric is stable at a temperature of at least about 120°C,

and wherein said ~~fabric comprises~~ a plurality of ~~drawn~~ polymeric filaments comprises a combination of undrawn and partially drawn radial filaments ~~yarns which are directionally aligned or oriented to increase strength and dimensional stability.~~

2. (Original) The implantable prosthesis of claim 1 wherein said fabric is polyethylene naphthalate.

3. (Original) The implantable prosthesis of claim 1 wherein said fabric is selected from the group consisting of poly(ethylene naphthalate), poly(propylene naphthalate), polytrimethylene naphthalate, trimethylenediol naphthalate, poly(iso-propylene naphthalate), poly(n-butylene naphthalate), poly(iso-butylene naphthalate), poly(tert-butylene naphthalate), poly(n-pentylene naphthalate), poly(n-hexylene naphthalate), and combinations and derivatives thereof.

4. (Original) The implantable prosthesis according to claim 1 wherein said textile construction is selected from the group consisting of weaves, knits, braids, filament windings or spun filament.

5. (Original) The implantable prosthesis according to claim 1 wherein said implantable prosthesis is a vascular graft

6. (Original) The implantable prosthesis according to claim 1 wherein said implantable prosthesis is an endovascular graft.

7. (Withdrawn) The implantable prosthesis according to claim 1 wherein said implantable prosthesis is selected from the group consisting of a balloon catheter, filter, mesh, vascular patch, hernia plug and arterial-vascular access graft.

8. (Original) The implantable prosthesis according to claim 1 further including a coating.

9. (Original) The implantable prosthesis according to claim 1, wherein the polymeric filaments have about 20 to about 100 filaments.

10. (Original) The implantable prosthesis according to claim 1, wherein the polymeric filaments have a denier from about 20 to about 1500.

11. (Currently amended) An implantable prosthesis having improved mechanical and chemical properties comprising:

a radiation resistant and hydrolytically stable biocompatible tubular fabric of a textile construction,

said fabric having a plurality of yarns selected from the group consisting of polyethylene naphthalate, polybutylene naphthalate and combinations thereof, wherein said radiation resistant and hydrolytically stable biocompatible fabric is stable at a temperature of at least about 120°C,

and wherein said ~~fabric comprises a plurality of drawn polymeric filaments~~ comprises a combination of undrawn and partially drawn radial filaments ~~yarns which are directionally aligned or oriented to increase strength and dimensional stability.~~

12. (Original) The implantable prosthesis according to claim 11 wherein said implantable prosthesis is a intraluminal prosthesis.

13. (Original) The implantable prosthesis according to claim 11 wherein said implantable prosthesis is an endovascular graft.

14. (Original) The implantable prosthesis according to claim 11 further including a radially deformable support component.

15. (Original) The implantable prosthesis according to claim 14 wherein said support component is a radially deformable stent.

16. (Cancelled)

17. (Currently amended) Method for making a radiation and thermal resistant and hydrolytically stable, steam sterilizable biocompatible prosthesis comprising:

a) partially drawing a plurality of polymeric filaments comprising a naphthalene dicarboxylate derivative;

b) forming ~~providing~~ a fabric having an inner and outer surface and first and second ends, said fabric having a plurality of radial polymeric filaments comprising a combination of said partially drawn polymeric filaments and undrawn polymeric filaments, wherein said fabric being stable at a temperature of at least about 120°C;

c) ~~selecting a textile construction pattern;~~ and

d) forming said prosthesis from said fabric ~~in accordance with a textile construction pattern.~~

18. (Currently amended) Implantable prosthesis comprising a fabric having improved chemical and mechanical properties formed by the process comprising:

a) drawing a plurality of polymeric filaments comprising a naphthalene dicarboxylate derivative;

b) forming ~~providing~~ a fabric having an inner and outer surface and first and second ends, said fabric having a plurality of said drawn polymeric filaments, said fabric being stable at a temperature of at least about 120°C;

~~e) selecting a textile construction~~

~~cd) forming said prosthesis from said fabric in accordance with a textile pattern;~~

and

de) steam sterilizing said prosthesis.

19. (Currently amended) The implantable prosthesis according to claim 1, wherein said partially drawn and undrawn polymeric ~~yarns~~ filaments ~~further increase tenacity of said prosthesis~~ are capable of circumferential expansion.

20. (Previously presented) The implantable prosthesis according to claim 18, wherein the step of drawing a plurality of polymeric filaments further comprises drawing said polymeric filaments to a point just prior to the fracture point.

21. (Currently amended) An implantable prosthesis having improved mechanical and chemical properties comprising:

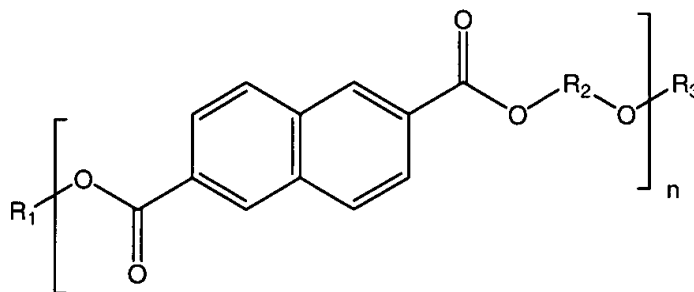
a radiation resistant and hydrolytically stable biocompatible fabric having inner and outer surfaces and first and second ends;

said fabric having a textile construction of a plurality of polymeric filaments which comprises a combination of undrawn and partially drawn radial filaments comprising a

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naphthalene dicarboxylate derivative, wherein said radiation resistant and hydrolytically stable biocompatible fabric is stable at a temperature of at least about 120°C,

wherein said naphthalene dicarboxylate derivative conforms to the formula:



wherein R₁ and R₃ are the same or different groups and are independently selected from the group consisting of hydrogen radicals and methyl radicals; R₂ is an alkylene radical having 1 to 6 carbon atoms which may be linear or branched; and n is from about 10 to about 200,

and wherein said prosthesis further comprises a series of crimps.